

Substitute for form 1449 A/PTO

Complete if Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

DEC 02 2003

Sheet: 1 of 5

Application Number	10/066,408
Filing Date	January 30, 2002
First Named Inventor	Easterbrook, Eric T.
Art Unit	3725
Examiner Name	Crane, D.
Attorney Docket Number	SI1-2627-U-C5

EXAMINER INITIALS*	Cite No. ¹	DOCUMENT NUMBER Number Kind Code ²	Publication Date MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	PAGES, COLUMNS, LINE, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		** 2,377,558	06/1945	Johnson	— Figs. 1, 2 —
		** 2,697,953	12/1954	Chapman	— Figs. 2-5 —
		** 2,810,191	10/1957	Hanna	— Figs. —
		** 2,909,281	10/1959	Koskinen	— Figs. 3, 4, 5, 7 —
		** 3,110,086	11/1963	Phillips	— —
		** 3,270,410	09/1966	Salter, et al	— Figs. 2-5 —
		** 3,412,593	11/1968	Price	— Fig. 7. —
		** 3,434,327	03/1969	Speakman	Figs. 5, 8; col. 4 Lines 7-37.
		** 3,520,418	07/1970	Guinard	— Fig. 2 —
		** 3,551,015	12/1970	Whiteside, et al	— Figs. 4a-4d —
		** 3,646,791	03/1972	Leftheris	— Figs. 3-4 —
		** 3,673,833	07/1972	Cadwell	— —
		** 3,796,086	03/1974	Phillips	— Figs. 1, 2, 3, —
		** 3,803,898	04/1974	Speakman	— Figs. 3, 5 —
		** 3,824,824	07/1974	Leftheris	Col. 7, line 59 to Col. 10, line 50
		** 3,895,922	07/1975	Phillips	— Figs. 2, 3, 5 —
		** 3,945,109	03/1976	Leftheris	— —
		** 4,034,585	07/1977	Straub	— —

EXAMINER
SIGNATURE

CRANE

DATE
CONSIDERED

2-19-03

EXAMINER *: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**Items which were disclosed in the prior application, from which an earlier filing date is claimed for this application. These items are identified by asteriks and are not enclosed in accord with 37 C.F.R. § 1.98(d)

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³ Enter Office that issued the document, by the two letter code. ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. ⁶ Applicant is to place a check mark here if English language translation is attached.

RECEIVED
DEC 09 2003
TECHNICAL CENTER

Substitute for form 1449 A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/066,408
		Filing Date	January 30, 2002
		First Named Inventor	Easterbrook, Eric T.
		Art Unit	3725
		Examiner Name	Crane, D.
Sheet: 2 of 5		Attorney Docket Number	SI1-2627-U-C5

DEC 02 2003
 PATENT & TRADEMARK OFFICE

EXAMINER INITIALS*	Cite No. ¹	DOCUMENT NUMBER Number Kind Code	Publication Date MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	PAGES, COLUMNS, LINES, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		** 4,091,260	05/1978	Leftheris, et al	— —
		** 4,129,028	12/1978	Leftheris	—Fig. 2 —
		** 4,245,921	01/1981	Falcioni	—Fig. 2 —
		** 4,248,075	02/1981	Whitley	—Fig. 1 —
		** 4,417,463	11/1983	Nelson	—Fig. 2 —
		** 4,423,619	01/1984	Champoux	—Fig. 5-8 —
		** 4,493,141	01/1985	Krezak	— —
		** 4,711,115	12/1987	Sukonnik	— —
		**4,771,627	09/1988	Speakman	Figs. 3,4 —
		**4,836,705	06/1989	La Barge, et al	Figs. 6-10 —
		** 4,862,043	08/1989	Zieve	—Figs. 1,4 —
		** 4,885,829	12/1989	Landy	Figs. 2-5,10 —
		**4,918,970	04/1990	Ishinaga	—Fig. 3 —
		** 4,934,170	06/1990	Easterbrook et al	Figs. 2,3,6 —
		**5,024,075	06/1991	Simonetto	—Fig. 1 —
		** 5,059,059	10/1991	Cox	—Fig. 4 —
		5,146,668	09/1992	Gulistan	— —
		** 5,398,537	03/1995	Michalewski et al	—Figs. 3-4 —
		**5,746,085	05/1998	Harada, et al	—Figs. 1-3 —
		** 5,755,133	05/1998	Hirai	—Fig. 2 —

EXAMINER SIGNATURE	CRANE	DATE CONSIDERED	2-19-04
-----------------------	-------	--------------------	---------

EXAMINER *: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**Items which were disclosed in the prior application, from which an earlier filing date is claimed for this application. These items are identified by "*" asteriks and are not enclosed in accord with 37 C.F.R. § 1.98(d)

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.
³ Enter Office that issued the document, by the two letter code. ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. ⁶ Applicant is to place a check mark here if English language translation is attached.

RECEIVED
 DEC 09 2003
 TECHNOLOGY CENTER

Substitute for form 1449 A/PTO

Complete if Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT



Sheet: 3 of 5

Application Number	10/066,408
Filing Date	January 30, 2002
First Named Inventor	Easterbrook, Eric T.
Art Unit	3725
Examiner Name	Crane, D.
Attorney Docket Number	SI1-2627-U-C5

EXAMINER INITIALS*	Cite No. ¹	DOCUMENT NUMBER Number Kind Code ²	Publication Date MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	PAGES, COLUMNS, LINES, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		** 5,771,729	06/1998	Bailey, et al	Fig. 1; col. 3, line 39-54
		** 5,816,093	10/1998	Takeuchi, et al	Fig. 3b
		** 5,841,033	11/1998	Burris, et al	
		** 5,943,897	08/1999	Tsue, et al	Figs. 5,6
		** 5,943,897	08/1999	Tsue, et al	Figs. 5,6

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	FOREIGN PATENT DOCUMENT Office ³ Number ⁴ Kind ⁵	Publication Date MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	PAGES, COLUMNS, LINES, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR	T ⁶
		** DE-390,726	02/1924	Germany		
		** SU-439,330	08/1974	USSR		
		** JP-52-28087	03/1977	Japan		
		** JP-60-216931 A	10/1985	Japan	Fig. 4	
		** JP-2-151321	06/1990	Japan		
		** JP-2-274414	11/1990	Japan		
		** SU-1,648,619-A1	5/1991	Russia		
		** SU-1,808,878-A1	5/1991	Russia		
		** JP-4-138824	5/1992	Japan		
		** 2,121,120	05/1993	Canada	Figs. 3-5, 12, 18	

EXAMINER SIGNATURE	CRANE	DATE CONSIDERED	2-19-04
--------------------	-------	-----------------	---------

EXAMINER *: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

****Items which were disclosed in the prior application, from which an earlier filing date is claimed for this application. These items are identified by "*" asteriks and are not enclosed in accord with 37 C.F.R. § 1.98(d).**

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³ Enter Office that issued the document, by the two letter code. ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. ⁶ Applicant is to place a check mark here if English language translation is attached.

RECEIVED
DEC 09 2003
TECHNOLOGY CENTER R3700

Substitute for form 1449 A/PTO

Complete if Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet: 4 of 5

Application Number	10/066,408
Filing Date	January 30, 2002
First Named Inventor	Easterbrook, Eric T.
Art Unit	3725
Examiner Name	Crane, D.
Attorney Docket Number	SII-2627-U-CS

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		** "Analysis of Stress and Deformation" Introduction To Contact Mechanics, Elastic Indentation Stress Fields, Chapter 5, pages 116-117.(NOT PRIOR ART BASED ON DATE)	
		** "The Propagation of Waves in Elastic Solid Media", S.P. Timoshenko and J.N. Goodier, Theory of Elasticity, Third Edition, Chapter 14, pp. 485-504.	
		** "Plastic Waves and Shock Waves", H. Kolsky, Stress Waves in Solids, Chapter VII, pp. 163-182.	
		** "Coining of Holes in Aluminum Plates: Finite Element Simulations and Experiments", Rutger Ogeman, Journal of Aircraft, Vol. 29, No. 5, Sept-Oct, 1992. pp. 947-952.	
		** "Extending the Fatigue Life of Aircraft Engine Components by Hole Cold Expansion Technology", Antonio C. Rufin, ASME, presented at International Gas Turbine and Aeroengine Congress and Exposition, Cologne, Germany, June 1-4, 1992. (9 pages)	
		** "Fatigue Improvement by Sleeve Coldworking", Joseph L. Phillips, SAE, Inc., National Aerospace Engineering and Manufacturing Meeting, Los Angeles, California, October 16-18, 1973. (13 pages)	
		** "The Latest Technology in Hole Finishing: Ballizing", Sid Grodsky, Final Finish Technology, Spring, 1988, pp. 10-18.	
		** "A Comparison of Two Manufacturers' Coldwork Tooling Systems: Does a Hole Recognize a Manufacturers' Part Number?", G. Rodman and M. Creager, West Coast Industries, (12 pages)	
		** "Shear Crack Issues Addressed by Split Mandrel and Automated Coldworking", Matthew Weigel, Anthony Leon, SAE Aerofast 1996 Conference, Bellevue Washington, October 1-3, 1996 (9 pages)	
		** "Improvement of Fatigue Performance By Cold Hole Expansion. Part 1: Model of Fatigue Limit Improvement", V. Kliman, M. Bily and J. Prohaska, International Journal Fatigue, March 1993, pp. 93-100	
		** "Improvement of Fatigue Performance By Cold Hole Expansion. Part 2: Experimental Verification of Proposed Model", V. Kliman, M. Bily and J. Prohaska, International Journal Fatigue, March 1993, pp. 101-105.	
		** "Automated Applications For The Split Mandrel Coldworking System", West Coast Industries, Fatigue Tech-Notes, Split Mandrel Automation 1093, (5 pages)	

EXAMINER
SIGNATUREDATE
CONSIDERED

2-19-04

EXAMINER *: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

****Items which were disclosed in the prior application, from which an earlier filing date is claimed for this application. These items are identified by "*" asteriks and are not enclosed in accord with 37 C.F.R. § 1.98(d).**

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language translation is attached.

DEC 09 2003

TECHNOLOGY CENTER R3700

Substitute for form 1449 A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/066,408
		Filing Date	January 30, 2002
		First Named Inventor	Easterbrook, Eric T.
		Art Unit	3725
		Examiner Name	Crane, D.
Sheet: 5 of 5		Attorney Docket Number	SI1-2627-U-C5

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		** "The Effect of Interference on the Dimpled, Loaded-Hole Fatigue Strength of 2024-T3 Alclad® Aluminum Alloy", A.P. Kuc and J. Shewchuk, Journal of Testing and Evaluation, JTEVA, Vol. 6, No. 3, May, 1978, pp. 157-166.	
		** "Stress Corrosion Susceptibility of Stress-Coined Fastener Holes in Aircraft Structures", A.E. Carter and S. Hanagud, AIAA Journal, Vol. 13, No. 7, pp. 858-863.	
		** "Incorporating Hole Cold Expansion to Meet Durability and Damage Tolerance Airworthiness Objectives", L. Reid, Fatigue Technology Inc., #972624, (9 pages).	

EXAMINER SIGNATURE		DATE CONSIDERED	2-19-04
--------------------	--	-----------------	---------

EXAMINER *: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language translation is attached.

****Items which were disclosed in the prior application, from which an earlier filing date is claimed for this application. These items are identified by "*" asteriks and are not enclosed in accord with 37 C.F.R. §1.98(d)**

RECEIVED
DEC 09 2003
TECHNOLOGY CENTER R3700